

## **REMARKS**

This application has been reviewed in light of the Final Office Action mailed on October 16, 2003. Claims 1-10 are pending in the application with Claim 1 being in independent form. By the present amendment, Claims 1-10 have been amended. No new matter or issues are believed to be introduced by the amendments.

In the Final Office Action, Claims 2-10 were objected to. Claims 2-10 have been amended in a manner which is believed to obviate the objection. Specifically, Claims 2-10 have been amended to delete the word "to" in line 1 of each of these claims. Accordingly, withdrawal of the objection is respectfully requested.

Claims 1-3 were rejected under 35 U.S.C. §103(a) over U.S. Patent No. 5,084,085 issued to Morad on January 21, 1992 ("Morad") in view of Stewart C. Bushong; Magnetic Resonance Imaging, 2<sup>nd</sup> edition, pp. 148-150, Mosby-Year Book, Inc., 1996 ("Bushong").

Claim 1 has been amended in a manner which is believed to better define Applicants' invention and to overcome the rejection. Claim 1 has been amended to recite "A magnetic resonance imaging apparatus (1) comprising a gradient coil assembly (3, 4, 5) for generating gradient magnetic fields in an imaging volume, the gradient coil assembly (3, 4, 5) comprising at least three gradient coils (3, 4, 5) for generating three different gradient magnetic fields, wherein a conductive element (71, 72, 73) is provided in close proximity to at least one of the gradient coils (3, 4, 5) in order to compensate self-induced eddy currents in the gradient coil assembly (3, 4, 5), and wherein each of the gradient coils comprise a pair of coil elements arranged in different planar axis and connected to an independently controlled power supply." (Emphasis added)

Neither Morad nor Bushong disclose or suggest at least the newly added limitations to Claim 1. Morad discloses a compact shield gradient coil system having a first set of gradient coils coaxially surrounded by a conducting shield. A second set of gradient coils coaxially surrounds the conducting shield. The first and second sets of gradient coils and the conducting shield are therefore coaxially arranged and produce a linear gradient field inside the imaging volume. (See, e.g., FIG. 1 and col. 2, line 64 to col. 3, line 6) The first and second sets of gradient coils are connected to two outputs of the same power supply which is identified by reference numeral 15. (See col. 3, lines 6-9 in conjunction with FIG. 1) Morad does not disclose or suggest each pair of coil elements for each set of gradient coils is connected to an independently controlled power supply, as recited by Applicants' Claim 1.

Bushong does not cure the deficiencies of Morad. Bushong discloses at the bottom of page 149 that the three pairs of gradient coils are energized simultaneously for producing a single composite magnetic field and to obtain an oblique image. Bushong does not disclose or suggest that each pair of coil elements for each set of gradient coils is connected to an independently controlled power supply, as recited by Applicants' Claim 1.

Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) and allowance of Claim 1 are respectfully requested.

Claims 2-3 depend from Claim 1, and therefore include the limitations of Claim 1. Accordingly, for the same reasons given for Claim 1, Claims 2-3 are believed to contain patentable subject matter. Hence, withdrawal of the rejection under 35 U.S.C. §103(a) and allowance of Claims 2-3 are respectfully requested.

Claims 4-6 and 10 were rejected under 35 U.S.C. §103(a) over Morad in view of Bushong as applied to Claims 1-3 above, and further in view of Doty (WO 94/01785).

Claims 4-6 and 10 depend from Claim 1, and therefore include the limitations of Claim 1. Accordingly, for the same reasons given for Claim 1, Claims 4-6 and 10 are believed to contain patentable subject matter. Hence, withdrawal of the rejection under 35 U.S.C. §103(a) and allowance of Claims 4-6 and 10 are respectfully requested.

Claims 8 and 9 were rejected under 35 U.S.C. §103(a) over Morad and Bushong as applied to Claims 1-3 above, and further in view of Mulder et al. (WO 00/25146).

Claims 8 and 9 depend from Claim 1, and therefore include the limitations of Claim 1. Accordingly, for the same reasons given for Claim 1, Claims 8 and 9 are believed to contain patentable subject matter. Hence, withdrawal of the rejection under 35 U.S.C. §103(a) and allowance of Claims 8 and 9 are respectfully requested.

Claim 7 was rejected under 35 U.S.C. §103(a) over Morad, Bushong and Doty as applied to Claims 4-6 and 10, and further in view of U.S. Patent No. 6,509,555 issued to Riess et al.

Claim 7 depends from Claim 1, and therefore includes the limitations of Claim 1. Accordingly, for the same reasons given for Claim 1, Claim 7 is believed to contain patentable subject matter. Hence, withdrawal of the rejection under 35 U.S.C. §103(a) and allowance of Claim 7 are respectfully requested.

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1-10, are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call John Vodopia, Esq., Intellectual Property Counsel, Philips Electronics North America, at 914-333-9627.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "George Likourezos", written over a horizontal line.

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